UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

FORM 6-K

REPORT OF FOREIGN PRIVATE ISSUER PURSUANT TO RULE 13a-16 OR 15d-16 UNDER THE SECURITIES EXCHANGE ACT OF 1934

For the month of June 2024

Commission File Number: 001-40858

XORTX Therapeutics Inc.

3710 – 33rd Street NW, Calgary, Alberta, T2L 2M1

Indicate by check mark whether the registrant files or will file annual reports under cover Form 20-F or Form 40-F. Form 20-F [X] Form 40-F []

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly

XORTX Therapeutics Inc. (Registrant)

Date: June 11, 2024 By:

<u>/s/ Allen Davidoff</u> Allen Davidoff Chief Executive Officer Name: Title:

EXHIBIT INDEX

99.1 News release dated March 11, 2024

XORTX Reprices Warrants Issued in Connection with Previous Private Placements

NOT FOR DISTRIBUTION TO UNITED STATES NEWS WIRE SERVICES OR FOR DISSEMINATION IN THE UNITED STATES

CALGARY, Alberta, March 11, 2024 (GLOBE NEWSWIRE) -- XORTX Therapeutics Inc. ("XORTX" or the "Company") (NASDAQ: XRTX | TSXV: XRTX | Frankfurt: ANU), a late stage clinical pharmaceutical company focused on developing innovative therapies to treat progressive kidney disease, announces that it is proposing to amend the terms of an aggregate of 1,101,433 outstanding common share purchase warrants ("Warrants") by amending the exercise price to USD \$5.00 per share.

231,746 of the Warrants were issued pursuant to Private Placement that closed on February 9, 2021. The Warrants had an original exercise price of CAD \$42.26 per share. The Company intends to amend the exercise price from CAD \$42.26 to USD \$5.00 (on a post-consolidation basis).

286,355 of the Warrants were issued pursuant to a Private Placement that closed on October 15, 2021. The Warrants had an original exercise price of CAD \$53.10 per share. The Company intends to amend the exercise price from CAD \$53.10 to USD \$5.00 (on a post-consolidation basis).

583,332 of the Warrants were issued pursuant to a Private Placement that closed on October 7, 2022. The Warrants had an original exercise price of CAD \$15.06 per share. The Company intends to amend the exercise price from CAD \$15.06 to USD \$5.00 (on a post-consolidation basis).

Pursuant to the polices of the TSX Venture Exchange ("Exchange") the terms of the Warrants, as amended, will be subject to an acceleration expiry provision such that if for any ten consecutive trading dates (the "Premium Trading Days") during the unexpired term of the Warrants, the closing price of the Company's shares on the Exchange exceeds USD \$6.50, the exercise period of the Warrants will be reduced to 30 days, starting seven days after the last Premium Trading Day. The Company will announce any such accelerated expiry date by press release. All other terms of the Warrants remain unchanged.

The amendments described above are subject to acceptance by the holders of the Warrants and the approval of the Exchange.

About XORTX Therapeutics Inc.

XORTX is a pharmaceutical company with two clinically advanced products in development: 1) our lead, XRx-008 program for ADPKD; and 2) our secondary program in XRx-101 for acute kidney and other acute organ injury associated with Respiratory Viral infection. In addition, XRx-225 is a pre-clinical stage program for Type 2 Diabetic Nephropathy. XORTX is working to advance its clinical development stage products that target aberrant purine metabolism and xanthine oxidase to decrease or inhibit production of uric acid. At XORTX, we are dedicated to developing medications to improve the quality of life and future health of patients with kidney disease. Additional information on XORTX is available at www.xortx.com.

For further information, please contact:

Allen Davidoff, CEO adavidoff@xortx.com or +1 403 455 7727

Nick Rigopulos, Director of Communications nick@alpineequityadv.com or +1 617 901 0785

Neither the TSX Venture Exchange nor Nasdaq has approved or disapproved the contents of this news release. No stock exchange, securities commission or other regulatory authority has approved or disapproved the information contained herein.

Forward Looking Statements

This press release contains express or implied forward-looking statements pursuant to U.S. Federal securities laws. These forward-looking statements and their implications are based on the current expectations of the management of XORTX only, and are subject to a number of factors and uncertainties that could cause actual results to differ materially from those described in the forward-looking statements. Except as otherwise required by law, XORTX undertakes no obligation to publicly release any revisions to these forward-looking statements to reflect events or circumstances after the date hereof or to reflect the occurrence of unanticipated events. More detailed information about the risks and uncertainties affecting XORTX is contained under the heading "Risk Factors" in XORTX's Registration Statement on Form F-1 filed with the SEC, which is available on the SEC's website, www.sec.gov (including any documents forming a part thereof or incorporated by reference therein), as well as in our reports, public disclosure documents and other filings with the securities commissions and other regulatory bodies in Canada, which are available on www.sedarplus.ca.